

Glossary

The glossary lists acronyms and terms with Army or joint definitions, and other selected terms. Where Army and joint definitions are different, (Army) follows the term. Terms for which FM 3-52 is the proponent manual (the authority) are marked with an asterisk (*). The proponent manual for other terms is listed in parentheses after the definition.

*A2C2	Army airspace command and control
AADC	area air defense commander
AAGS	Army Air-Ground System
AAMDC	Army air and missile defense command
AAW	antiair warfare
ABCCC	airborne battlefield command and control center
ABCS	Army Battle Command System
ACA	airspace control authority
ACE	aviation combat element Marine air-ground task force (MAGTF)
ACM	airspace control measure
ACO	airspace control order
ACP	airspace control plan; air control point (graphics only)
AD	air defense
ADA	air defense artillery
ADC	air defense commander (graphics only)
ADIZ	air defense identification zone
ADLS	air defense liaison section
ADRG	ARC digitized raster graphics
ADSI	Air Defense System Integrator
AFARN	Air Force air request net
AFATDS	Advanced Field Artillery Tactical Data System
AFFOR	Air Force forces
AFLE	Air Force Liaison Element
AFSOC	Air Force special operations commander (graphics only)
AIC	airspace information center

*air control point	(Army) an easily identifiable point on the terrain or an electronic navigational aid used to provide necessary control during air movement. Air control points are generally designated at each point where the flight route or air corridor makes a definite change in any direction and at any other point deemed necessary for timing or control of the operation.
air corridor	a restricted air route of travel specified for use by friendly aircraft and established for the purpose of preventing friendly aircraft from being fired on by friendly forces (JP 3-52)
air defense identification zone	airspace of defined dimensions within which the ready identification, location, and control of airborne vehicles are required (JP 3-52)
air defense warning conditions	a degree of air raid probability according to the following code. The term air defense division/sector referred to herein may include forces and units afloat and/or deployed to forward areas, as applicable. Air defense warning yellow—attack by hostile aircraft and/or missiles is probable. This means that hostile aircraft and/or missiles are en route toward an air defense division/sector, or unknown aircraft and/or missiles suspected to be hostile are en route toward or are within an air defense division/sector. Air defense warning red—attack by hostile aircraft and/or missiles is imminent or is in progress. This means that hostile aircraft and/or missiles are within an air defense division/sector or are in the immediate vicinity of an air defense division/sector with high probability of entering the division/sector. Air defense warning white—attack by hostile aircraft and/or missiles is improbable. May be called either before or after air defense warning yellow or red. The initial declaration of air defense emergency will automatically establish a condition of air defense warning other than white for purposes of security control of air traffic. (JP 1-02)
air defense	all defensive measures designed to destroy attacking enemy aircraft or missiles in the Earth's envelope of atmosphere, or to nullify or reduce the effectiveness of such attack (JP 3-56.1)
air liaison officer	an officer (aviator/pilot or naval flight officer) attached to a ground unit who functions as the primary advisor to the ground commander on air operation matters (JP 1-02)
air operations center	the principal air operations installation from which aircraft and air warning functions of combat air operations are directed, controlled, and executed. It is the senior agency of the Air Force Component Commander from which command and control of air operations are coordinated with other components and Services. (JP 3-56.1)
airspace control	asee airspace control in the combat zone
airspace control area	airspace which is laterally defined by the boundaries of the area of operations. The airspace control area may be subdivided into airspace control sectors. (JP 3-52)

airspace control authority	the commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area (JP 3-52)
airspace control in the combat zone	a process used to increase combat effectiveness by promoting the safe, efficient, and flexible use of airspace. Airspace control is provided in order to prevent fratricide, enhance air defense operations, and permit greater flexibility of operations. Airspace control does not infringe on the authority vested in commanders to approve, disapprove, or deny combat operations. (JP 3-52)
airspace control measures	rules, mechanisms, and directions governed by joint doctrine and defined by the airspace control plan which control the use of airspace of specified dimensions (FM 1-02)
airspace control order	an order implementing the airspace control plan that provides the details of the approved requests for airspace control measures. It is published either as part of the air tasking order or as a separate document. (JP 3-56.1)
airspace control plan	the document approved by the joint force commander that provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility and/or joint operations area (JP 3-52)
airspace coordination area	a three-dimensional block of airspace in a target area, established by the appropriate ground commander, in which friendly aircraft are reasonably safe from friendly surface fires. The airspace coordination area may be formal or informal. (JP 1-02)
airspace management	the coordination, integration, and regulation of the use of airspace of defined dimensions (JP 3-52)
air support operations center	an agency of a tactical air control system collocated with a corps headquarters or an appropriate land force headquarters, which coordinates and directs close air support and other tactical air support (JP 1-02)
air tasking order	a method used to task and disseminate to components, subordinate units, and command and control agencies projected sorties, capabilities and/or forces to targets and specific missions. Normally provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions (JP 3-56.1)
ALO	air liaison officer
AMD	air and missile defense
AMDPCS	Air and Missile Defense Planning and Control System
AME	air mobility element
AMLS	airspace management liaison section
amphibious objective area	a geographical area (delineated for command and control purposes in the order initiating the amphibious operation) within

which is located the objective(s) to be secured by the amphibious force. This area must be of sufficient size to ensure accomplishment of the amphibious force's mission and must provide sufficient area for conducting necessary sea, air, and land operations. (JP 3-02)

AMPS	Aviation Mission Planning System
ANGLICO	air and naval gunfire liaison company
ANGPLT	air naval gunfire platoon
AO	area of operations
AOA	amphibious objective area
AOC	air operations center (USAF)
AOR	area of responsibility
ARC	equal Arc second raster Chart/map

area air defense commander within a unified command, subordinate unified command, or joint task force, the commander will assign overall responsibility for air defense to a single commander. Normally, this will be the component commander with the preponderance of air defense capability and the command, control, and communications capability to plan and execute integrated air defense operations. Representation from the other components involved will be provided, as appropriate, to the area air defense commander's headquarters. (JP 3-52)

area of interest that area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory to the objectives of current or planned operations. This area also includes areas occupied by enemy forces who could jeopardize the accomplishment of the mission. (JP 3-0)

area of operations an operational area defined by the joint force commander for land and naval forces. Areas of operation do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. (JP 3-0)

area of responsibility the geographical area associated with a combatant command within which a combatant commander has authority to plan and conduct operations (JP 3-0)

AREC air resource element coordinator

ARFOR the senior Army headquarters and all Army forces assigned or attached to a combatant command, subordinate joint force command, joint functional command, or multinational command.

***Army airspace command and control** (Army) the Army's application of airspace control to coordinate airspace users for concurrent employment in the accomplishment of assigned missions

ARSOC Army special operations commander (graphics only)

ASAS	All Source Analysis System
ASC(A)	assault support coordinator (airborne)
ASOC	air support operations center
ATACMS	Army Tactical Missile System
ATACS	(Army) Amphibious Tactical Air Control System
ATC	air traffic control
ATCCS	Army Tactical Command and Control System
ATDL	Army tactical data link
ATK	attacking (graphics only)
ATO	air tasking order
ATS	air traffic service
avenue of approach	(Army) the air or ground route leading to an objective (or key terrain in its path) that an attacking force can use (FM 3-90)
AWACS	Airborne Warning and Control System
axis of advance	(Army) the general area through which the bulk of a unit's combat power must move (FM 3-90)
BAS	battlefield automated systems
base defense zone	an air defense zone established around an air base and limited to the engagement envelope of short-range air defense weapons systems defending that base. Base defense zones have specific entry, exit, and identification, friend or foe procedures established. (JP 3-52)
battle position	(Army) a defensive location oriented on a likely enemy avenue of approach (FM 3-90)
battlefield coordination detachment	an Army liaison provided by the Army component or force commander to the air operations center (AOC) and/or to the component designated by the joint force commander to plan, coordinate, and deconflict air operations. The battlefield coordination detachment processes Army requests for air support, monitors and interprets the land battle situation for the AOC, and provides the necessary interface for exchange of current intelligence and operational data. (JP 1-02)
BCD	battlefield coordination detachment (formerly battlefield coordination element)
BDE	brigade (graphics only)
BDZ	base defense zone (graphics only)
BN	battalion (graphics only)
BOS	battlefield operating systems
BSA	brigade support area (graphics only)

C2	command and control
C2IP	Command and Control Initiatives Program
C2WC	command and control warfare commander
C3I	command, control, communications, and intelligence
C4ISR	command, control, communications, computers, intelligence, surveillance, and reconnaissance
CAC	Combined Arms Center
CAP	combat air patrol
CAS	close air support
CATF	commander, amphibious task force
CCP	communications check point (graphics only)
CFL	coordinated fire line
checkpoint	(Army) a predetermined point on the ground used to control movement, tactical maneuver, and orientation (FM 3-90)
CJCSM	Chairman of the Joint Chiefs of Staff Manual
CLF	commander, landing force
close air support	air action by fixed- and rotary-wing aircraft against hostile targets which are in close proximity to friendly forces and that require detailed integration of each air mission with the fire and movement of those forces (JP 3-56.1)
CLRS	central launch and recovery section
Co	company (graphics only)
combat air patrol	an aircraft patrol provided over an objective area, the force protected, the critical area of a combat zone, or in an air defense area, for the purpose of intercepting and destroying hostile aircraft before they reach their targets (JP 1-02)
combat service support	the essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. Within the national and theater logistic systems, it includes but is not limited to that support rendered by service forces in ensuring the aspects of supply, maintenance, transportation, health services, and other services required by aviation and ground combat troops to permit those units to accomplish their missions in combat. Combat service support encompasses those activities at all levels of war that produce sustainment to all operating forces on the battlefield. (JP 4-0)
combat support	(Army) critical combat functions provided by units and soldiers in conjunction with combat arms units and soldiers to secure victory (FM 3-90)

combat zone	1. that area required by combat forces for the conduct of operations. 2. The territory forward of the Army rear area boundary. (JP 3-52)
COMJTF	commander, joint task force
command and control	the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. (JP 0-2)
commander, amphibious task force	the Navy officer designated in the order initiating the amphibious operation as the commander of the amphibious task-force (JP 3-02)
commander's critical information requirements	(Army) elements of information required by commanders that directly affect decision making and dictate the successful execution of military operations (FM 3-0)
commander's intent	(Army) a clear, concise statement of what the force must do and the conditions the force must meet to succeed with respect to the enemy, terrain, and the desired end state (FM 3-0)
command post	(Army) a unit's headquarters where the commander and staff perform their activities during operations. It is often divided into echelons. The command post is the principal facility employed by the commander to control combat operations. (FM 6-0)
common operational picture	(Army) an operational picture tailored to the user's requirements, based on common data and information shared by more than one command (FM 3-0)
common reference system	common reference systems provide a universal, joint perspective with which to define specific areas of the battlespace, enabling the commanders to efficiently coordinate, deconflict, integrate, and synchronize attacks (JP 3-60)
communications checkpoint	(Army) an air control point that requires serial leaders to report either to the aviation mission commander or the terminal control facility (FM 1-02)
COMMZ	communications zone
composite warfare commander	the officer in tactical command is normally the composite warfare commander. However the composite warfare commander concept allows an officer in tactical command to delegate tactical command to the composite warfare commander. The composite warfare commander wages combat operations to counter threats to the force and to maintain tactical sea control with assets assigned; while the officer in tactical command retains close control of power projection and strategic sea control operations. (JP 1-02)

concept of operations	(Army) describes how commanders see the actions of subordinate units fitting together to accomplish the mission. As a minimum, the description includes the scheme of maneuver and concept of fires. The concept of operations expands the commander's selected course of action and expresses how each element of the force will cooperate to accomplish the mission. (FM 3-0)
control and reporting center	a center directly subordinate to the JAOC and is the senior TACS radar element responsible for decentralized execution of air defense and airspace control. The CRC provides battle management, weapons control, surveillance, identification, and link management. The CRC provides positive and procedural airspace control. The CRC is assigned a geographic sector by the JAOC, within which it manages all defensive air, offensive air and airspace management activities. The CRC is responsible for recommending changes in air defense (AD) warning conditions based on the air situation. (JP 1-02)
controlled airspace	an airspace of defined dimensions within which air traffic control service is provided to controlled flights (JP 1-02) (this manual does not use the Army definition of this term)
control measures	directives given graphically or orally by a commander to subordinate commands to assign responsibilities, coordinate fires and maneuver, and control combat operations. Each control measure can be portrayed graphically. In general, all control measures should be easily identifiable on the ground. Examples of control measures include boundaries, objectives, coordinating points, contact point, and direction of attack. (JP 1-02)
coordinated fire line	the coordinated fire line (CFL) is a line beyond which conventional, direct, and indirect surface fire support means may fire at any time within the boundaries of the establishing headquarters without additional coordination. The purpose of the CFL is to expedite the surface-to-surface attack of targets beyond the CFL without coordination with the ground commander in whose area the targets are located. (JP 3-09)
coordinating altitude	a procedural airspace control method to separate fixed- and rotary-wing aircraft by determining an altitude below which fixed-wing aircraft will normally not fly and above which rotary-wing aircraft normally will not fly. The coordinating altitude is normally specified in the airspace control plan and may include a buffer zone for small altitude deviations (JP 3-52)
COP	common operational picture
counterair	a mission which integrates offensive and defensive operations to attain and maintain a desired degree of air superiority. Counter-air missions are designed to destroy or negate enemy aircraft and missiles, both before and after launch. (JP 3-01)
counterair operations	see counterair
CP	command post

CRC	control reporting center
CRE	control and reporting element
CSSCS	Combat Service Support Control System
CV	aircraft carrier (graphics only)
CWC	composite warfare commander
DASC	direct air support center
DASC(A)	direct air support center (airborne)
DET	detachment (graphics only)
DIV	division (graphics only)
DOCC	deep operations coordination cell
DOD	Department of Defense
DSA	division support area (graphics only)
DTED	digital terrain elevation data
DTSS	Digital Topographic Support System
E-2C	Hawkeye—airborne early warning aircraft
EA	electronic attack
EAC	echelons above corps
EFF	effective (graphics only)
electronic warfare	any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy (JP 3-51)
engagement area	(Army) where the commander intends to contain and destroy an enemy force with the massed effects of all available weapons and supporting systems (FM 3-90)
EW	electronic warfare
EW/C	early warning/control
FA	field artillery
FAAD	forward area air defense
FAC	forward air controller
FAC(A)	forward air controller (airborne)
FARP	forward arming and refueling point
FBCB2	Force XXI Battle Command Brigade and Below
FDC	fire direction center
FFA	free-fire area
FFCC	force fires coordination center (graphics only)

fighter engagement zone	in air defense, that airspace of defined dimensions within which the responsibility for engagement of air threats normally rests with fighter aircraft (JP 3-52)
fire support	fires that directly support land, maritime, amphibious, and special operation forces to engage enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives (JP 1-02)
fire support coordinating measure	a measure employed by land or amphibious commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces (JP 1-02)
fire support coordination	the planning and executing of fire so that targets are adequately covered by a suitable weapon or group of weapons (JP 3-09)
fire support coordination line	a fire support coordinating measure that is established and adjusted by appropriate land or amphibious force commanders within their boundaries in consultation with superior, subordinate, supporting, and affected commanders. Fire support coordination lines (FSCLs) facilitate the expeditious attack of surface targets of opportunity beyond the coordinating measure. An FSCL does not divide an area of operations by defining a boundary between close and deep operations or a zone for close air support. The FSCL applies to all fires of air, land, and sea-based weapons systems using any type of ammunition. Forces attacking targets beyond an FSCL must inform all affected commanders in sufficient time to allow necessary reaction to avoid fratricide. Supporting elements attacking targets beyond the FSCL must ensure that the attack will not produce adverse attacks on, or to the rear of, the line. Short of an FSCL, all air-to-ground and surface-to-surface attack operations are controlled by the appropriate land or amphibious force commander. The FSCL should follow well-defined terrain features. Coordination of attacks beyond the FSCL is especially critical to commanders of air, land, and special operations forces. In exceptional circumstances, the inability to conduct this coordination will not preclude the attack of targets beyond the FSCL. However, failure to do so may increase the risk of fratricide and could waste limited resources. (JP 3-09)
flight corridor	see air corridor
flight following	the task of maintaining contact with specified aircraft for the purpose of determining en route progress and/or flight termination (JP 1-02)
FLOT	forward line of own troops
FM	field manual
FOC	flight operations center (graphics only)
force projection	the ability to project the military element of national power from the continental United States (CONUS) or another theater, in response to requirements for military operations. Force projection

operations extend from mobilization and deployment of forces to redeployment to CONUS or home theater. (JP 3-0)

forward air controller (airborne) a specifically trained and qualified aviation officer who exercises control from the air of aircraft engaged in close air support of ground troops. The forward air controller (airborne) is normally an airborne extension of the tactical air control party. (JP 1-02)

forward arming and refueling point a temporary facility—organized, equipped, and deployed by an aviation commander, and normally located in the main battle area closer to the area where operations are being conducted than the aviation unit's combat service area—to provide fuel and ammunition necessary for the employment of aviation maneuver units in combat. The forward arming and refueling point permits combat aircraft to rapidly refuel and rearm simultaneously. (JP 1-02)

forward line of own troops a line that indicates the most forward positions of friendly forces in any kind of military operation at a specific time. The forward line of own troops (FLOT) normally identifies the forward location of covering and screening forces. The FLOT may be at, beyond, or short of the forward edge of the battle area. An enemy FLOT indicates the forward-most position of hostile forces. (JP 1-02) This manual does not use the Army definition of this term.

FRAGO fragmentary order

fratricide (Army) the unintentional killing or wounding of friendly personnel by friendly firepower (FM 3-0)

free-fire area a specific area into which any weapon system may fire into without additional coordination with the establishing headquarters (JP 3-09)

FS fire support

FSCC fire support coordination center

FSCCL fire support coordination line

FSCM fire support coordinating measure

FSE fire support element

FSO fire support officer

FTR fighter (graphics only)

G2 assistant chief of staff, intelligence

G3 assistant chief of staff, operations

G4 assistant chief of staff, logistics

GCCS Global Command and Control System

GCE ground combat element (graphics only)

GLO ground liaison officer

- Global Command and Control System** highly mobile, deployable command and control system supporting forces for joint and multinational operations across the range of military operations, any time and anywhere in the world with compatible, interoperable, and integrated command, control, communications, computers, and intelligence systems (JP 1-02)
- ground liaison officer** an officer trained in offensive air support activities. Ground liaison officers are normally organized into parties under the control of the appropriate Army commander to provide liaison to Air Force and naval units engaged in training and combat operations (JP 1-02)
- H** hour
- HELO** helicopter (graphics only)
- HF** high frequency
- HIDACZ** high-density airspace control zone
- high-altitude missile engagement zone** in air defense, that airspace of defined dimensions within which the responsibility for engagement of air threats normally rests with high-altitude surface-to-air missiles (JP 3-52)
- high-density airspace control zone** airspace designated in an airspace control plan or airspace control order, in which there is a concentrated employment of numerous and varied weapons and airspace users. A high-density airspace control zone has defined dimensions which usually coincide with geographical features or navigational aids. Access to a high-density airspace control zone is normally controlled by the maneuver commander. The maneuver commander can also direct a more restrictive weapons status within the high-density airspace control zone. (JP 3-52)
- HIMAD** high-to-medium-altitude air defense
- HMMWV** high mobility multipurpose wheeled vehicle
- hostile acts** basic rules established by higher authority for defining and recognizing hostile acts by aircraft, submarines, surface units, and ground forces that will be promulgated by the commanders of unified or specified commands, and by other appropriate commanders when so authorized (JP 1-02)
- hostile criteria** description of conditions under which an aircraft or a vehicle may be identified as hostile for engagement purposes (see also hostile acts and rules of engagement) (JP 1-02)
- HQ** headquarters
- HRN** helicopter radio net (graphics only)
- IBCT** interim brigade combat team
- ID** identification
- identification, friend or foe** a system using electromagnetic transmissions to which equipment carried by friendly forces automatically responds, for

	example, by emitting pulses, thereby distinguishing themselves from enemy forces (JP 3-52)
IEW	intelligence and electronic warfare
IFF	identification, friend or foe
IJMS	interim JTIDS message specification
IMETS	Integrated Meteorological System
information operations	actions taken to affect adversary information and information systems while defending one's own information and information systems (JP 3-13)
INFOSYS	information systems
Intell	intelligence (graphics only)
intelligence	1. the product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas; 2. information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding (JP 1-02)
intelligence preparation of the battlefield	(Army) an analytical methodology employed as part of intelligence planning to reduce uncertainties concerning the enemy, environment, and terrain for all types of operations. Intelligence preparation of the battlefield is conducted during mission planning to support the commander's decisionmaking and to form the basis for the direction of intelligence operations in support of current and future missions. It utilizes existing databases and identifies gaps in intelligence needed to determine the impact of the enemy, environment, and terrain on operations and presents this in an appropriate form to facilitate operational planning. It forms the basis for situation development. (FM 1-02)
IO	information operations
IP	Internet Protocol
ISR	intelligence, surveillance, and reconnaissance
IWEDA	Integrated Weather Effects Decision Aid (graphics only)
JAOC	joint air operations center
JFACC	joint force air component commander
JFC	joint force commander
JFLCC	joint force land component commander
JFSOC	joint force special operations commander (graphics only)
JFSOCC	joint force special operations component commander
JOA	joint operations area
JOC	joint operations center

joint air operations	air operations performed with air capabilities/forces made available by components in support of the joint force commander's operation or campaign objectives, or in support of other components of the joint force (JP 3-56.1)
joint air operations center	a jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives (JP 3-56.1)
joint engagement zone	in air defense, that airspace of defined dimensions within which multiple air defense systems (surface-to-air missiles and aircraft) are simultaneously employed to engage air threats (JP 3-52)
joint force air component commander	the commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking air forces; planning and coordinating air operations; or accomplishing such operational missions as may be assigned. The joint force air component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. (JP 1-02)
joint force commander	a general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force (JP 0-2)
joint force land component commander	the commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking land forces; planning and coordinating land operations; or accomplishing such operational missions as may be assigned. The joint force land component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. (JP 3-0)
joint force special operations component commander	the commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking special operations forces and assets; planning and coordinating special operations; or accomplishing such operational missions as may be assigned. The joint force special operations component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. (JP 3-0)
JP	joint publication
JRFL	joint restricted frequency list
JSTARS	Joint Surveillance Target Attack Radar System
JTIDS	Joint Tactical Information Distribution System

JTMD	joint theater missile defense
JUH-MTF	Joint User Handbook-Message Text Formats
JWARN	Joint Warning and Reporting Network
LAAD	low-altitude air defense
LAN	local area network
land forces	personnel, weapon systems, vehicles, and support elements operating on land to accomplish assigned missions and tasks (JP 1-02)
LC	line of contact (graphics only)
LD	line of departure (graphics only)
liaison	that contact or intercommunication maintained between elements of military forces or other agencies to ensure mutual understanding and unity of purpose and action (JP 3-08)
LLTR	low-level transit route
LNO	liaison officer
low-altitude missile engagement zone	in air defense, that airspace of defined dimensions within which the responsibility for engagement of air threats normally rests with low- to medium-altitude surface-to-air missiles (JP 3-52)
low-level transit route	a temporary corridor of defined dimensions established in the forward area to minimize the risk to friendly aircraft from friendly air defenses or surface forces (JP 3-52)
LZ	landing zone (graphics only)
MACCS	Marine Air Command and Control System
MAGTF	Marine air-ground task force
MARFOR	Marine forces (graphics only)
Marine air command and control system	a system that provides the aviation combat element commander with the means to command, coordinate, and control all air operations within an assigned sector and to coordinate air operations with other Services. It is composed of command and control agencies with communications-electronics equipment that incorporates a capability from manual through semiautomatic control. (JP 1-02)
Marine air-ground task force	a task organization of Marine forces (division, aircraft wing, and service support groups) under a single command and structured to accomplish a specific mission. The Marine air-ground task force (MAGTF) components will normally include command, aviation combat, ground combat, and combat service support elements (including Navy Support Elements). Two types of Marine air-ground task forces which can be task organized are the Marine expeditionary unit and Marine expeditionary force. (JP 1-02)

MARLO	Marine liaison officer
MATC	Marine air traffic control
MAW	Marine air wing
MCOO	modified combined obstacle overlay (graphics only)
MCS	Maneuver Control System
MECH	mechanized (graphics only)
MEF	Marine expeditionary force (graphics only)
METT-TC	mission, enemy, terrain and weather, troops and support available, time available, civil considerations
MI	military intelligence
MIJI	meaconing, interference, jamming, and intrusion
MIL-STD	military standard
minimum attack altitude	the lowest altitude determined by the tactical use of weapons, terrain consideration, and weapons effects that permits the safe conduct of an air attack and/or minimizes effective enemy counteraction (JP 1-02)
minimum crossing altitude	the lowest altitude at certain radio fixes at which an aircraft must cross when proceeding in the direction of a higher minimum en route instrument flight rules altitude (JP 1-02)
minimum-risk route	a temporary corridor of defined dimensions recommended for use by high-speed, fixed-wing aircraft that presents the minimum known hazards to low-flying aircraft transiting the combat zone (JP 3-52)
MLRS	Multiple Launch Rocket System
MRR	minimum-risk route
MTF	message text format
multinational operations	a collective term to describe military actions conducted by forces of two or more nations, usually undertaken within the structure of a coalition or alliance (JP 0-2)
NAI	named area of interest
NALE	naval and amphibious liaison element
NATO	North Atlantic Treaty Organization
NAVAID	navigational aid
NAVFOR	Navy forces (graphics only)
NAVSOC	Navy special operations commander (graphics only)
NBC	nuclear, biological, and chemical
NFA	no-fire area
NFO	naval flight officer

NG	National Guard (graphics only)
NGFO	naval gunfire officer
NIMA	National Imagery and Mapping Agency
NO.	numbered (graphics only)
no-fire area	a land area designated by the appropriate commander into which fires or their effects are prohibited (JP 3-09)
NSFSN	naval surface fire support net (graphics only)
NTACS	Navy Tactical Air Control System
OBJ	objective (graphics only)
observation post	a position from which military observations are made, or fire directed and adjusted, and which possesses appropriate communications; may be airborne (JP 1-02)
OCT	October
offensive counterair attack operations	offensive action in support of the offensive counterair mission against surface targets which contribute to the enemy's air power capabilities. The objective of attack operations is to prevent the hostile use of aircraft and missile forces by attacking targets such as missile launch sites, airfields, naval vessels, command and control nodes, munitions stockpiles, and supporting infrastructure. Attack operations may be performed by fixed- or rotary-wing aircraft, surface-to-surface weapons, special operations forces, or ground forces. (JP 3-01)
officer in tactical command	in maritime usage, the senior officer present eligible to assume command, or the officer to whom the senior officer has delegated tactical command (JP 1-02)
operational control	command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in

	operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. (JP 0-2)
OPLAN	operation plan
OPORD	operation order
Ops	operations (graphics only)
OTC	officer in tactical command
PADIL	Patriot digital information link
PL	phase line (graphics only)
positive control	a method of airspace control that relies on positive identification, tracking, and direction of aircraft within an airspace, conducted with electronic means by an agency having the authority and responsibility therein (JP 3-52)
procedural control	a method of airspace control which relies on a combination of previously agreed and promulgated orders and procedures (JP 3-52)
PZ	pickup zone (graphics only)
RAH 66	Comanche armed reconnaissance helicopter
real time	pertaining to the timeliness of data or information which has been delayed only by the time required for electronic communication. This implies that there are no noticeable delays. (JP 1-02)
reconnaissance	a mission undertaken to obtain by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area (JP 1-02)
REP	representative (graphics only)
restricted operations area	airspace of defined dimensions, designated by the airspace control authority, in response to specific operational situations/requirements within which the operation of one or more airspace users is restricted (JP 3-52)
restrictive fire line	a line established between converging friendly surface forces that prohibits fires or their effects across that line (JP 3-09)
RFA	restrictive fire area
RFL	restrictive fire line
RGT	regiment (graphics only)
ROA	restricted operations area
ROE	rules of engagement
ROZ	restricted operations zone

rules of engagement	directives issued by competent military authority which delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered (JP 1-02)
S2	battalion or brigade intelligence staff officer
S3	battalion or brigade operations staff officer
S4	battalion or brigade logistics staff officer
SAAFR	standard use Army aircraft flight route
SACC	supporting arms coordination center
SADC	sector air defense commander
SALT	supporting arms liaison team
SAR	search and rescue
SAWC	sector air warfare coordinator
SCC	sea combat commander (graphics only)
scheme of maneuver	description of how arrayed forces will accomplish the commander's intent. It is the central expression of the commander's concept for operations and governs the design of supporting plans or annexes (FM 5-0)
selective identification feature	a capability that, when added to the basic identification friend or foe system, provides the means to transmit, receive, and display selected coded replies (JP 1-02)
SEMA	special electronic mission aircraft
SFCP	shore fire control party
short-range air defense engagement zone	in air defense, that airspace of defined dimensions within which the responsibility for engagement of air threats normally rests with short-range air defense weapons. It may be established within a low- or high-altitude missile engagement zone. (JP 3-52)
SIF	selective identification feature
SLO	space liaison officer
SOC	special operations command
SOCCE	special operations command and control element
SOCOORD	special operations coordination element
SOF	special operations forces
SOLE	special operations liaison element
SOP	standing operating procedure
SPINS	special instructions
SPT	support (graphics only)

standard use Army aircraft flight route routes established below the coordinating altitude to facilitate the movement of Army aviation assets. Routes are normally located in the corps through brigade rear areas of operation and do not require approval by the airspace control authority. (JP 3-52)

STRATLAT strategic liaison team (graphics only)

STWC strike warfare commander

surveillance the systematic observation of aerospace, surface or subsurface areas, places, persons, or things, by visual, aural, electronic, photographic or other means (JP 1-02)

SUWC surface warfare commander

TAAMDCOORD theater Army air and missile defense coordinator

TAC tactical or terminal air controller or tactical command post, or terminal access controller

TAC(A) tactical air coordinator (airborne)

TACC tactical air command center (USMC)

TACOPDAT tactical operational data

TACP tactical air control party

TACS Theater Air Control System (USAF)

tactical air command center the Marine Corps' tactical air command center (TACC) is the senior agency of the Marine air command and control system (MACCS) (JP 1-02)

tactical air control center the principal air operations installation (ship-based) from which all aircraft and air warning functions of tactical air operations are controlled (JP 1-02)

tactical air control party a subordinate operational component of a tactical air control system designed to provide air liaison to land forces and for the control of aircraft (JP 1-02)

tactical air direction center an air operations installation under the overall control of the tactical air control center (afloat) or tactical air command center, from which aircraft and air warning service functions of tactical air operations in an area of concern are directed (JP 1-02)

tactical air operations center the principal air control agency of the US Marine air command and control system responsible for airspace control and management. It provides real-time surveillance, direction, positive control, and navigational assistance for friendly aircraft. It performs real-time direction and control of all antiair warfare operations, to include manned interceptors and surface-to-air weapons. It is subordinate to the tactical air command center. (JP 1-02)

tactical control command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements

or maneuvers within the operational area necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Tactical control provides sufficient authority for controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task. (JP 0-2)

TADC	tactical air direction center
TADIL	tactical digital information link
TAGS	Theater Air-Ground System
TAIS	Tactical Airspace Integration System
TALCE	tactical airlift control element (graphics only)
TALO	theater airlift liaison officer
TAMD	theater air and missile defense
TAOC	tactical air operations center (USMC)
TAR	tactical air radio (graphics only)
TBM	tactical ballistic missile
TBMCS	Theater Battle Management Core System
TBP	to be published
TCP	Transmission Control Protocol
terrain flight	flight close to the Earth's surface during which airspeed, height, and/or altitude are adapted to the contours and cover of the ground in order to avoid enemy detection and fire (JP 1-02)
TF	task force (graphics only)
theater airlift	that airlift assigned or attached to a combatant command (command authority) of a combatant commander other than Commander in Chief, US Transportation Command, which provides air movement and delivery of personnel and equipment directly into objective areas through air landing, airdrop, extraction, or other delivery techniques; and the air logistic support of all theater forces, including those engaged in combat operations, to meet specific theater objectives and requirements. (JP 3-17) This manual does not use the Army definition of this term.
theater airlift liaison officer	an officer specially trained to implement the theater air control system and to control tactical airlift assets. Theater airlift liaison officers are highly qualified, rated airlift officers with tactical (airdrop) airlift experience and assigned duties, supporting US Army units. (JP 3-17)

theater of operations	a subarea within a theater of war defined by the geographic combatant commander required to conduct or support specific combat operations. Different theaters of operations within the same theater of war will normally be geographically separate and focused on different enemy forces. Theaters of operations are usually of significant size, allowing for operations over extended periods of time. (JP 3-0)
TI	tactical Internet
TLAM	Tomahawk land-attack missile
TOC	tactical operations center
TOE	table of organization and equipment
TRADOC	Training and Doctrine Command (Army)
TTP	tactics, techniques, and procedures
UAP	unit airspace plan
UAV	unmanned aerial vehicle
UHF	ultrahigh frequency
United States message text format	a program designed to enhance joint and combined combat effectiveness through standardization of message formats, data elements, and information exchange procedures. Standard message formats with standard information content provides all tactical commanders at the joint interface with a common playing field and a common language. (MIL-STD-6040)
unmanned aerial vehicle	a powered, aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload. Ballistic or semi-ballistic vehicles, cruise missiles, and artillery projectiles are not considered unmanned aerial vehicles. (JP 3-55.1)
US	United States
USAF	United States Air Force
USMC	United States Marine Corps
USMTF	United States message text format
USWC	undersea warfare commander
VHF	very high frequency
VMF	variable message format
weapon control status	weapons control of surface-to-air units is expressed as a status declared for a particular area and time (JP 3-01)
weapon engagement zone	in air defense, airspace of defined dimensions within which the responsibility for engagement of air threats normally rests with a particular weapon system. See also fighter engagement zone, high-altitude missile engagement zone, low-altitude missile

	engagement zone, short-range air defense engagement zone, and joint engagement zone. (JP 3-52)
weapons free	in air defense, a weapon control order imposing a status whereby weapons systems may be fired at any target not positively recognized as friendly. (See also weapons hold, weapons tight, and air defense weapon control status.) (JP 1-02)
weapons free zone	an air defense zone established for the protection of key assets or facilities, other than air bases, where weapon systems may be fired at any target not positively recognized as friendly (JP 3-52)
weapons hold	in air defense, a weapon control order imposing a status whereby weapons systems may only be fired in self-defense or in response to a formal order. (See also weapons free, weapons tight, and air defense weapon control status.) (JP 1-02)
weapons tight	in air defense, a weapon control order imposing a status whereby weapons systems may be fired only at targets recognized as hostile. (JP 1-02)
WEZ	weapon engagement zone
WFZ	weapons free zone (graphics only)
WOC	wing operations center (USAF)